**Py-numpy6**

A and B are 2 pre-defined lists.

Consider the given lists and create arrays a, b of numpy

Apply the arithmetic operators like +,-,\*,/,% on them

Display the output as given in the sample output.

Sample Output:

Array a = [21 42 6]

Array b = [5 10 15]

a + b = [xxx yyy zzz]

a - b = [xxx yyy zzz]

a \* b = [xxx yyy zzz]

a / b = [xxx yyy zzz]

a % b = [xxx yyy zzz]

**Solution**

exec(open("preexec.py").read())

#write your coe here

import numpy as nd

#print(A)

#print(B)

a=nd.array(A,dtype=int)

b=nd.array(B,dtype=int)

print("Array a = {0}".format(a))

print("Array b = {0}".format(b))

c=a+b

d=a-b

e=a\*b

f=a/b

g=a%b

print("a + b = {0}".format(c))

print("a - b = {0}".format(d))

print("a \* b = {0}".format(e))

print("a / b = {0}".format(f))

print("a % b = {0}".format(g))

**py-numpy8**

Create a numpy array with the dimension 3X3X3 using arange()

Create a View with second row of each element of 0th dimension

Display the View

Sample Output:

[[[ 3 4 5]]

[[12 13 14]]

[[21 22 23]]]

Solution

#write your code here

import numpy as np

a = np.arange(27).reshape(3,3,3)

b=a[:,1:2,:]

print(b)

**py-numpy9**

Create a numpy array with the dimension 3X3X3 using arange()

Create a View "v1" with the elements present in second row of each element of 0th dimension

Create a View "v2" with the elements present in second col of each element of 0th dimension

add v1 and v2 and store it in v3

Display v1

Display v2

Display v3

Sample Output:

[[[ 3 4 5]]

[[12 13 14]]

[[21 22 23]]]

[[[ 1]

[ 4]

[ 7]]

[[10]

[13]

[16]]

[[19]

[22]

[25]]]

[[[ 4 5 6]

[ 7 8 9]

[10 11 12]]

[[22 23 24]

[25 26 27]

[28 29 30]]

[[40 41 42]

[43 44 45]

[46 47 48]]]

Solution

import numpy as np

a = np.arange(27).reshape(3,3,3)

#print("a = ",a)

b = a[:,1:2,:]

c = a[:,:,1:2]

print(b)

print(c)

print(b+c)